

Rubric for Organic Lab Reports – Spring 2019

Name:

Section:

Date:

Experiment Title:

Item	Max Score	Your Score
Introduction	6	
Physical Data	3	
Procedure	3	
Data & Observations	6	
Discussion of Results	15	
Technique	6	
Format	6	
RAW TOTAL	45	
Days late	-	
Points lost due to lateness (10%/day)	-	
FINAL GRADE	45	

Typed prelab (containing introduction, physical data, and procedure) is due at start of experiment. Data & observations are handwritten during experiment. Before you leave lab, your TA will initial your prelab and data & observations. The following lab period, turn in your lab report as a single stapled document containing, in this order: 1) Copy of this rubric 2) Initialed prelab 3) Data & observations 4) Typed postlab (containing discussion of results and any relevant spectra)

	Full points	Two-thirds points	One-third points	No points
Introduction (6 pts)	<ul style="list-style-type: none"> Purpose is stated clearly and correctly in a few sentences Structures (and mechanism, for preparative labs) are drawn in ChemDraw (or similar program) with no errors Any other info requested by experiment manual is complete and correct 	<ul style="list-style-type: none"> Purpose has minor errors, is incomplete or far too wordy Structures (and mechanism, for preparative labs) are drawn in ChemDraw with minor errors or omissions Info requested by experiment manual is mostly complete and correct 	<ul style="list-style-type: none"> Purpose is stated vaguely or incorrectly Structures (and mechanism, for preparative labs) are drawn in ChemDraw with major errors or omissions Info requested by experiment manual is incomplete or incorrect 	<ul style="list-style-type: none"> Purpose is not stated Structures (and mechanism, for preparative labs) are not shown at all, or are copied from another source, or are hand-drawn Info requested by experiment manual is missing
Physical Data (3 pts)	<ul style="list-style-type: none"> All compounds used in experiment are listed All relevant physical properties are given for each compound Amount of each reagent is correctly calculated, if not given in g or mL in manual Preparative lab only: Theoretical yield is correctly calculated, based on quantities of reagents given in procedure 	<ul style="list-style-type: none"> Most compounds are listed Most physical properties are given for each compound Amount of each reagent is calculated almost correctly Preparative lab only: Theoretical yield is calculated almost correctly 	<ul style="list-style-type: none"> Under half of compounds are listed Some physical properties are given for each compound Amount of each reagent is calculated with several mistakes Preparative lab only: Theoretical yield is calculated with several mistakes 	<ul style="list-style-type: none"> Few or no compounds are listed Few or no physical properties are given Amount of each reagent is not calculated Preparative lab only: Theoretical yield is not calculated

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Procedure (3 pts)	<ul style="list-style-type: none"> ○ All steps are listed clearly, in correct order 	<ul style="list-style-type: none"> ○ Most steps are listed clearly, in correct order 	<ul style="list-style-type: none"> ○ Most steps are listed incorrectly, unclearly, or in wrong order 	<ul style="list-style-type: none"> ○ No steps are listed
Data & Observtns (6 pts)	<ul style="list-style-type: none"> ○ Data and observations are present, clearly labeled and organized ○ Data is handwritten clearly on carbon-copy paper during experiment 	<ul style="list-style-type: none"> ○ Data and observations are mostly present, but disorganized or not labeled ○ Data is handwritten sloppily on carbon-copy paper during experiment 	<ul style="list-style-type: none"> ○ Data and observations are mostly missing, or so disorganized that they are useless ○ Data is either not written during lab, or very sloppy 	<ul style="list-style-type: none"> ○ Data and observations are missing
Discussion of Results (15 pts)	<ul style="list-style-type: none"> ○ Procedure is discussed with full explanation of why each step was performed ○ Data & observations are interpreted correctly ○ Any required spectra are attached and interpreted correctly ○ If relevant, percent yield or percent recovery is calculated correctly. Theoretical yield is revised, based on quantities of reagents used ○ Analysis of error and suggestions for improvements are thorough ○ Any other info specified by experiment manual is complete and correct ○ Writing is clear ○ Writing is in third-person past tense 	<ul style="list-style-type: none"> ○ Procedure is discussed with partial explanation ○ Data & observations are interpreted mostly correctly ○ Any required spectra are interpreted mostly correctly ○ If relevant, percent yield or percent recovery is calculated almost correctly. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are present but brief ○ Any other info specified by experiment manual is mostly complete and correct ○ Writing is fairly clear ○ Writing is mostly in third-person past tense 	<ul style="list-style-type: none"> ○ Experimental procedure is discussed with incorrect/no explanation ○ Data & observations are incompletely or incorrectly interpreted ○ Any required spectra are interpreted with significant errors ○ If relevant, percent yield or percent recovery is calculated incorrectly. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are mostly missing or inadequate ○ Any other info specified by experiment manual is incomplete or incorrect ○ Writing is fairly confusing ○ Writing is mostly in wrong tense 	<ul style="list-style-type: none"> ○ Experimental procedure is not discussed ○ Data & observations are not interpreted ○ Any required spectra are missing or not interpreted ○ If relevant, percent yield or percent recovery is not calculated. Theoretical yield is not revised ○ Analysis of error and suggestions for improvements are not given ○ Any other info specified by experiment manual is missing ○ Writing is very confusing ○ Writing is in wrong tense
Technique (6 pts)	<ul style="list-style-type: none"> ○ Student was prepared for lab and understood procedure & technique ○ Student followed correct safety procedures throughout experiment 	<ul style="list-style-type: none"> ○ Student was mostly prepared for lab and mostly understood procedure & technique ○ Student violated safety rules once or twice (no goggles, shorts, etc.) 	<ul style="list-style-type: none"> ○ Student was unprepared for lab and understood procedure & technique poorly ○ Student violated safety rules several times 	<ul style="list-style-type: none"> ○ Student was completely unprepared for lab and had no understanding of experiment ○ Student committed significant violations of safety rules
Format (6 pts)	<ul style="list-style-type: none"> ○ Report is typed (except for data) and turned in as paper copy, with good spelling, formatting, and grammar ○ All parts of lab report are present in correct order ○ All parts of lab report have identifying information 	<ul style="list-style-type: none"> ○ Report is typed but has some spelling, formatting or grammatical errors ○ All parts are present but not in correct order ○ Lab report has most of identifying info 	<ul style="list-style-type: none"> ○ Report is typed but has significant spelling, formatting or grammatical errors ○ Rubric sheet is not attached ○ Lab report has little identifying info 	<ul style="list-style-type: none"> ○ Entire lab report is handwritten, or not turned in as hard copy, or has terrible spelling or grammar ○ Multiple sections of lab report are missing ○ Lab report has no identifying info